

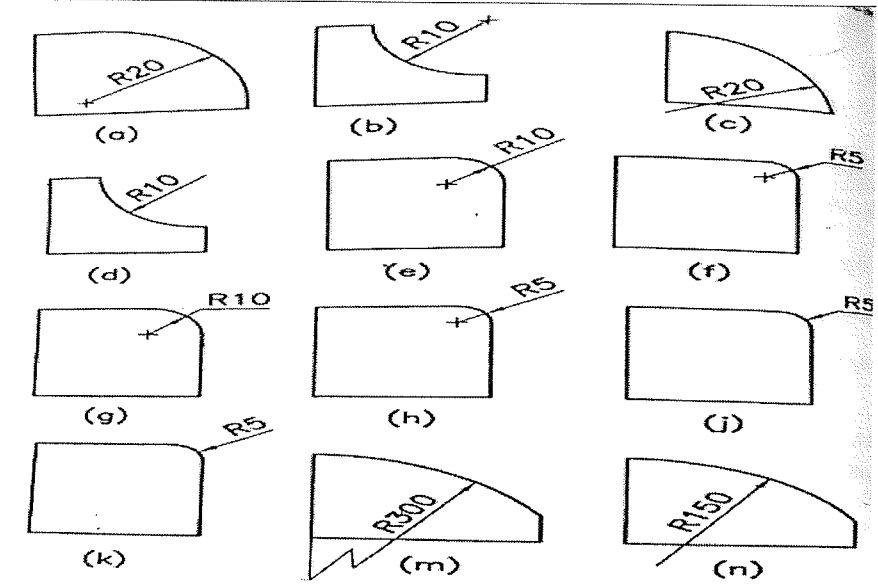
Qst. No	Scoring Indicators	Split up score	Sub Total	Total
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I (1) PART A
Write the name of any two types of lines used in engineering drawings
Continuous thick, Continuous thin, Dashed thick, Dashed thin, Chain thick.

2	2	
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I (2) 1. Draw any two methods to indicate the dimension of radius on an arc.

2	2	
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I (3) Define eccentricity of conic section
The ratio of distance of the point P from the focus F divided by its perpendicular distance from the directrix D is called eccentricity.

2	2	
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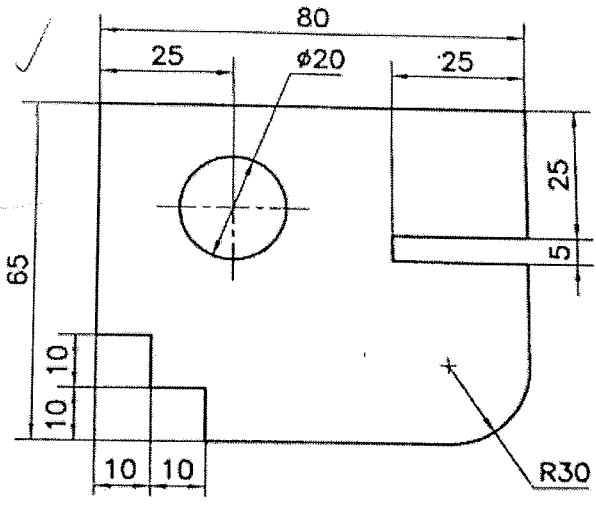
I (4) Explain development of surface and pattern.
The process of unfolding all the surface of an object on a plane is called development of surfaces. The form of object thus obtained on the plane is called pattern.

2	2	
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I (5) Write any four commands used in Auto CAD.
Commands-draw commands- line, circle, arc, ellipse, polygon, hatch, modify, erase, move, rotate, copy, mirror, break, trim, extent, scale, stretch, array fillet, chamfer, offset etc

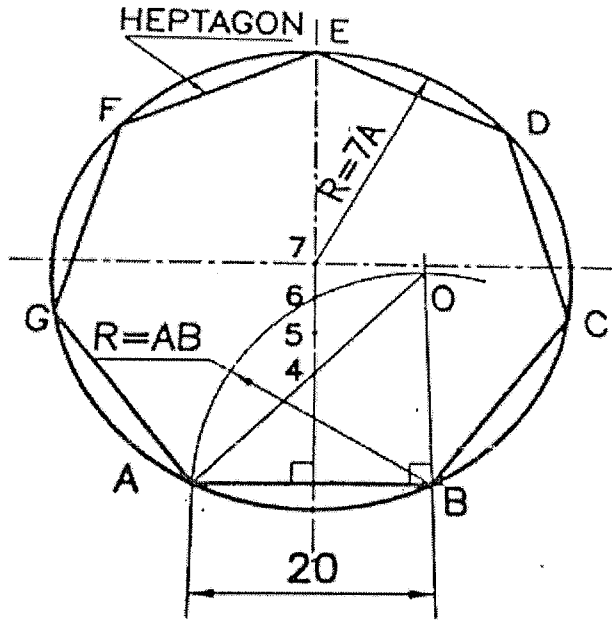
2	2	
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II Redraw the figure - 1 and dimension it as per BIS.



10 10

III Inscribe a regular heptagon of side 20mm.



10 10

IV

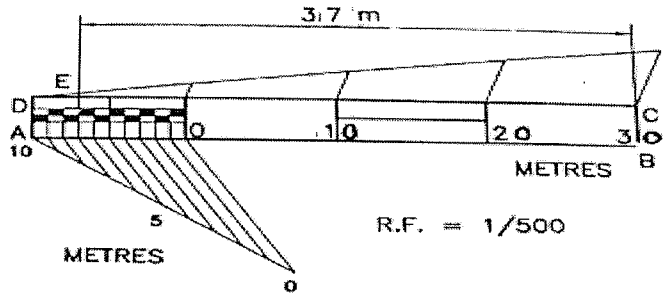
Draw a plain scale of 1cm = 5m meters and show on it 37 meters.

1. Representative fraction,

$$\begin{aligned}
 R.F. &= \frac{\text{Distance on drawing}}{\text{Distance on object}} \\
 &= \frac{1 \text{ cm}}{5 \text{ m}} = \frac{1 \text{ cm}}{5 \times 100 \text{ cm}} = \frac{1}{500}
 \end{aligned}$$

2. Length of the scale required

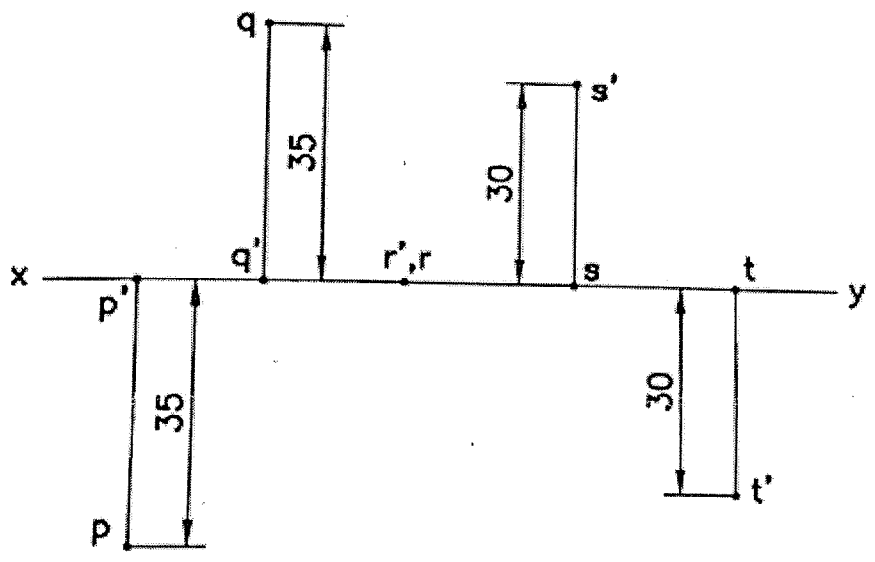
$$\begin{aligned}
 &= R.F. \times \text{length to be measured} \\
 &= \frac{1 \times 40 \times 1000}{500} \text{ mm} \\
 &= 80 \text{ mm}
 \end{aligned}$$



RF= 1/500, length of scale=80mm, Drawing= 80mm

V

Draw the projections of the following points



2

2

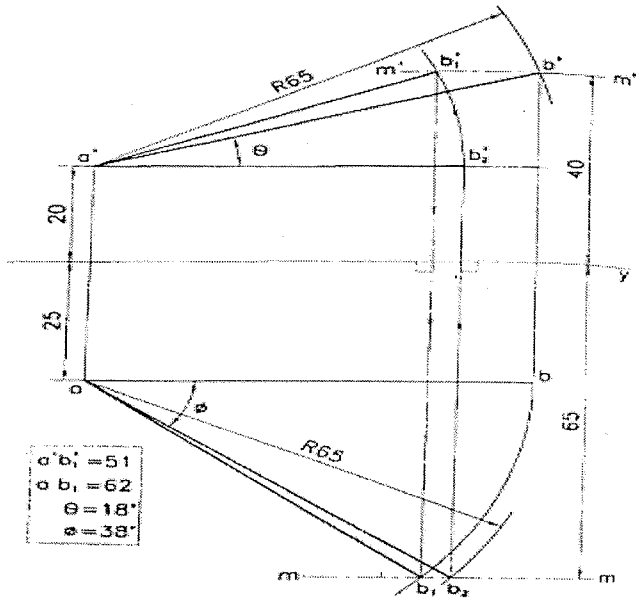
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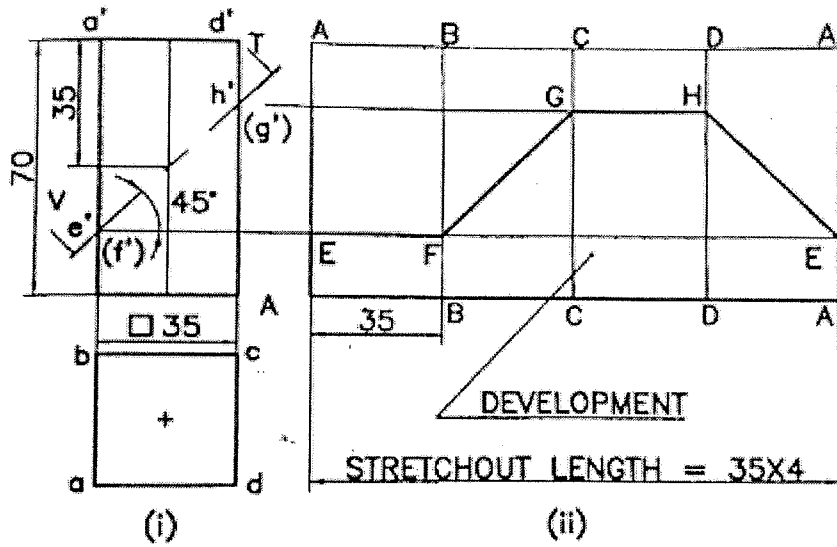
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VI



Projections = 7, Measurements = 3

VII



7

3

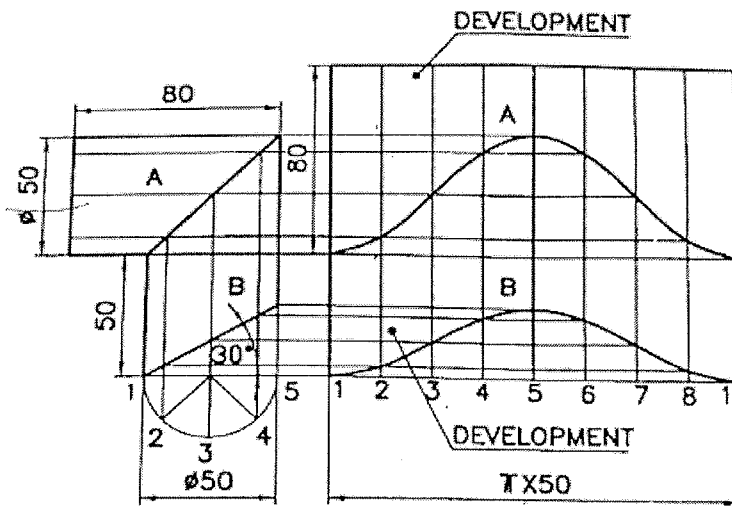
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VIII

Draw the complete development of an elbow shown in figure - 2

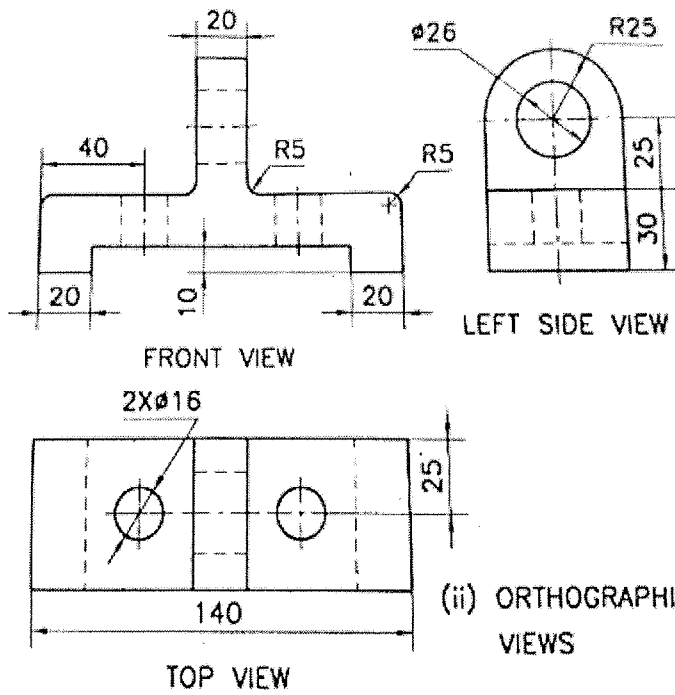


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IX

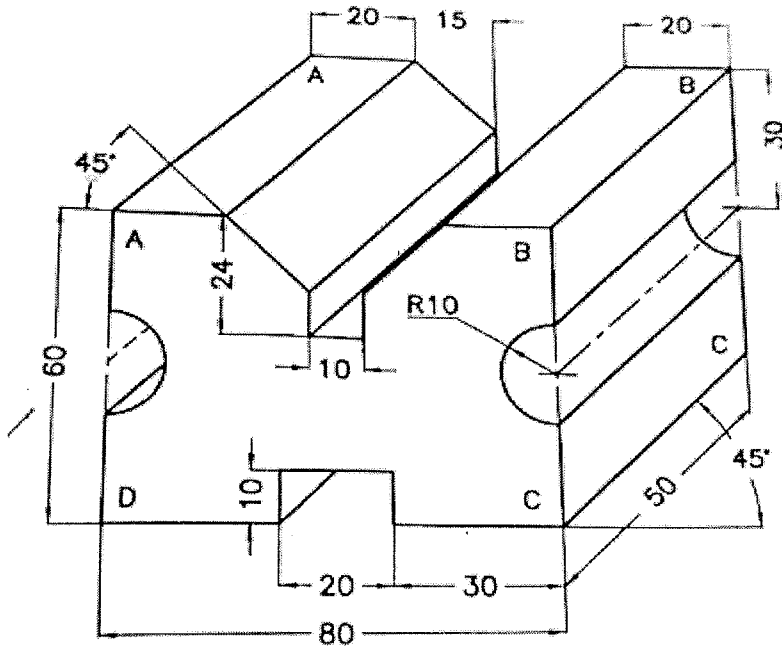


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20

Views = 15, Dimension = 3, Neatness = 2

X



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Drawing = 15, Dimension = 3, Neatness = 2

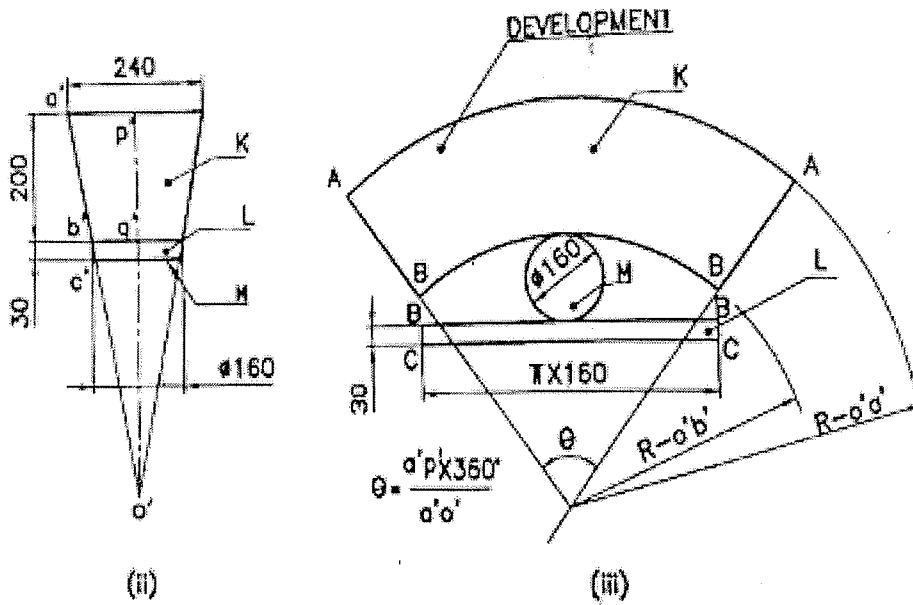
XI

Draw the development of a bucket shown in figure – 5

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Measurement = 5, Development = 10, Dimension = 3, Neatness = 2